Instructional Units Program Review Year Five Update - Automotive Technology Department Latest Version

This cycle is for Instructional Units to complete the Year Five Update of the Program Review Cycle.

Instructional Units Program Review Year Five Update

1. Program Update : Version by **Dearman, Jason** on **02/03/2022 19:49**

1a. Provide any important changes or updates within your program since your Program Review Year Three Update (2019-20). (New degrees, new curriculum, staffing changes, etc.)

Beginning late 2019 the LMC automotive program participated in the EV electric grant provided through the Advanced Transportation and Logistics Sector (Funded by the California Energy Commission). Following approval of funding we developed the Auto 124 Electric vehicles course and purchased training equipment (Tesla 3, switch lab vehicle, safety equipment, etc.). This course has been offered for the first time in the fall semester 2021 and is scheduled again for Spring 2022.
NATEF accreditation was completed in February of 2020 with support of our industry partners Subaru University, Mopar cap local, and Ford.
 No new degrees or certificates were added during this time. One part time adjunct was hired to fill in a temporary short fall in staffing for the auto 121 course.

1b. Please address the following enrollment data provided for your program.
    1.b.1. What are the enrollment trends over the past 3 years, beginning with Fall 2018? (Please address census enrollment, census fill   rate, and productivity (FTES/FTEF)

The program has seen significant growth prior to 2020. Enrolment had been increasing to a high census enrollment of 349 in Fall of 2019. This represented an increase of 15% from just two years prior of 297 in Fall of 2017. A drop in total enrollment occurred in 2020 and early 2021 due in large part to reduced class max for each course. Restrictions in the live lab caped each class at 22 students per section, overall enrolment is recorded at 92.1% showing available seats were filled regardless of pandemic conditions.
Fall of 2021 shows a rebound in enrollment to 263 (up from 199 in the 2020 fall semester).
Program productivity has fluctuated from a high of 22.6 in fall of 2017 to a slightly lower 19.5 when new courses were introduced and program growth just began ramping up. As of Fall 2021 productivity is at 14.4
Overall enrollment and productivity are recovering from the lows of spring 2020.

1b. Please address the following enrollment data provided for your program.
    1.b.2. What does the data suggest in terms of future needs/directions?

Prior to 2020 overall program growth was strong with over 90% fill as an average for the program. A considerable decline occurred in spring 2020 through spring 2021, this reduction was in part due to reduced student enrollments across the college and a 22 student max imposed on the program due to pandemic related restriction on the live on campus lab. With restrictions removed Fall 2021 saw a 30% increase in total enrollments but lower overall enrollment per course than pre 2020.
The data is reservedly encouraging, as a degree of normalcy returns it is expected that enrollments will continue to recover.
Future needs will require the program to review its long standing lab. The return on community vehicle for training purposes may not provide the more socially distance style of learning likely to remain for several semesters to come. (acquiring more training vehicles for use in the lab will be needed to maintain a high standard of student training.)

1c. Provide a brief update on the timeline for your program's goals as listed in your Program Review Year Three Update (2019-2020). If your program's goals are in progress or modified, please include action steps and responsible parties in your explanation.

Our program goals related to increasing A.S. and certificate awards is ongoing. We are currently awaiting out next Advisory Board meeting in February 2022 before proceeding further with certificates. Students are advised in all courses, but with significant changes in the automotive field (primarily EV) an adjustment to our certificates is in order. Input from our advisory board is critical prior to any adjustments. (Responsible parties: Jason Dearman)
Industry outreach is proceeding as planned students have been placed with our Subaru partners dealerships and a meeting was held with Ford motor company representatives regarding student pipelines into various career positions. (Responsible parties: Phil Torres)
Our equity pursuits are moving forward, particularly in cost reductions for students. With Zero Cost Texts being the ultimate long term goal, we have moved to CDX as our more immediate option. Students will now have a 30% reduction in book costs and reap the benefits of additional online resources. (responsible parties: Jason Dearman)

FOR CTE PROGRAMS ONLY
1c. Community and Labor Market Needs (Link Ed Code 78016 (http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=EDC&sectionNum=78016.), Title 5, 51022 (https://govt.westlaw.com/calregs/Document/I69DDBCC0B6CB11DFB199EEE3FF08959C?viewType=FullText&listSource=Search&originationContext=Search+Result&transitionType=SearchItem&contextData= (sc.Search)&navigationPath=Search%2fv1%2fresults%2fnavigation%2fi0ad7140b0000016c911a16d7fb7f969b%3fNav%3dREGULATION_PUBLICVIEW%26fragmentIdentifier%3dI69DDBCC0B6CB11DFB199EEE3FF08959C%26startInde

Labor market needs remains exceptionally strong in the transportations sector and even more specifically for the automotive repair and maintenance industry. EMSI data shows near 50% growth between 2015 and 2018. A generic search for technicians on job boards including Indeed.com reveal there are currently 650 open positions under automotive within 25 miles of Los Medanos College. Even operating at our maximum capacity the demand out strips the automotive programs deliverables many times over.
L.M.I. Data is currently unavailable for the EV transportation sector of automotive that is rapidly evolving. 2021 offered 14 EV models, by the conclusion of 2022 an anticipated 104 will be available. At current the workforce is nearly non-existent, but will need to begin ramping up in a short period of a few years.

FOR CTE PROGRAMS ONLY
1d. Advisory Board Update and Analysis (CTE related only) Include dates of Advisory Board meetings in 2020-2021, and those completed or planned in 2021-2022.

February of 2020 saw the advisory board meeting that included the finalization of LMC automotive NATEF accreditation.
Considerable reluctance to attend onsite through the duration of pandemic related restrictions complicated board meeting through 2021. An advisory meeting for 2022 has been scheduled for February 2022.
Independent meetings have been held with Ford, Mopar and various partners to maintain active working industry relationships.

Goals and Objectives	Modified	In Progress	Abandoned	Completed
Goal 1. Strengthen a culture of equity, diversity, inclusion, and racial justice. (District #2 and #4)				
Recommended Actions — Achieve a measurable increase in African American student success. Action Steps: Seek out training of flex activities for Faculty and Staff to help identify resources and instructional techniques to support this student population. Time Line: Fall 2020 Responsible parties: Phil Torres, Jason Dearman, Earl Ortiz — 0 linked SLOs / 0 resource requests				
Goal 2. Increase and maximize equitable opportunities for students to successfully complete courses and programs. (District #1 and #2)				
Recommended Actions — Reduce overall cost of student textbooks. Action Steps: Meet with CDX automotive. For potential switch to one time cost for digital text ($190-$225) vs. traditional textbooks at a cost of $1800-$2000 over the two year program. Time Line: Fall 2020 Responsible Parties: Jason Dearman, Phil Torres, Earl Ortiz — 0 linked SLOs / 0 resource requests				
Goal 3. Increase opportunities that will prepare students to enter high-demand and living-wage occupational fields. (District #3)				
Recommended Actions — As per VSF goal one, our goal will be to increase our number of students receiving their certificates. Action Steps: The majority of students' complete courses required for certification. Our first step will be to create visual reminders within the automotive area reminding students to apply for their certificates. Time Line: Fall 2020 Responsible Parties: Jason Dearman — 0 linked SLOs / 0 resource requests				
As per VSF goal One, Increase the number of students who complete and receive an AS in automotive technology Action Steps: Provide the counseling department a time to visit and work with students in the classroom during the semester to provide AS pathways. Time line: Fall 2020 Responsible parties: Jason Dearman — 0 linked SLOs / 0 resource requests				
Goal 4. To better support students in accomplishing their academic and career goals – from entry to completion/transition – and to enhance course-level and program-level achievement, expand and deepen educational, workforce, and community partnerships. (District #3)				
Recommended Actions — As per Goal VSF four, Connect students more directly with employers in the automotive industry. Action Steps: Create a more direct method for employers and students to connect. (social media, students seeking employment list approved to share with our employers) Time line: Fall 2020 Parties Responsible: Phil Torres — 0 linked SLOs / 0 resource requests				
Goal 5: Effectively utilize institutional resources to meet the needs critical to the College mission. (District #4 and #5)				

2. Vision for Success Goals Update : Version by **Dearman, Jason** on **02/03/2022 19:49**

2a. The following table lists the *Vision for Success* indicators that we must align to as a College and as a District. Please look at your program data (Tableau) for each of the following *Vision for Success* indicators. Please address all indicators that are relevant to your program and provide a status update on your program goals from your Program Review Year Three Update. Please include action steps if your goal(s) has been modified and an explanation if your goal(s) has been abandoned. *

NOTE - Please copy and paste the table below in your response and complete accordingly.

Vision for Success Indicators and ACCJC Indicator	Program Set Goals (from PR Year 3 Update)	Status (Indicate Modified, Completed, or Abandoned)	Timeline	Responsible Parties	Action Steps/ Explanation
Course Success					
Degrees (AA, AS, ADT)					
Certificates of Achievement					
Unit Reduction					
CTE Jobs					

Vision for Success Indicators and ACCJC Indicator	Program Set Goals for 2021-2022	Action Steps	Timeline	Responsible Parties	Notes
Degrees (AA, AS, ADT)	As per VSF goal One, Increase the number of students who complete and receive an AS in automotive technology	Provide the counseling department a time to visit and work with students in the classroom during the semester to provide AS pathways.	Fall 2020	Jason Dearman	
Certificates of Achievement	As per VSF goal one, our goal will be to increase our number of students receiving their certificates.	The majority of students' complete courses required for certification. Our first step will be to create visual reminders within the automotive area reminding students to apply for their certificates.	Fall of 2020	Jason Dearman	
CTE Jobs	As per Goal VSF four, Connect students more directly with employers in the automotive industry.	Create a more direct method for employers and students to connect. (social media, students seeking employment list approved to share with our employers)	Fall of 2020	Phil Torres	
Unit reduction					

No goals have been modified or discontinued. At this time our goals have not been completed but are making progress.

According to Course success data rates dropped 4-5 percent during the temporary conversion to online instruction (with a small recovery in Fall 22). 2018 saw a 71.8 success rate and 2021 saw a 68.6 success rate.

19 AS degrees were awarded from 2018 to 2021, a hire rate than in past years. The rising trend is most probably due to counselor visitations during the 2018-2019 school year. Support and information regarding certificates and degrees moved more students onto an achievement focused track

2b. The *Vision for Success Goal 5 - Equity* is designed to reduce the equity achievement gap on course seuccess for disproportionately impacted (DI) student populations. The College has identified the following three disproportionately impacted (DI) populations: African-American, economically disadvantage students (low income), and foster youth students.

Please review your program data (Tableau) for each of the aforementioned DI populations, and provide a status update on your program goal(s) for your previously selected DI population(s) in your Program Review Year Three Update. If your goal(s) has been modified please include action steps and if your goal(s) has been abandoned please provide an explanation.*

NOTE - Please copy and paste the table below in your response and complete accordingly.

Course Success by DI Population	Program Set Goals (PR Year 3 Update)	Status (Indicate Modified, Completed or Abandoned)	Timeline	Responsible Parties	Action Steps/ Explanation
African American					
Low Income					
Foster Youth					

Course Success by DI Population	Program Set Goals for 2021-2022	Action Steps	Timeline	Responsible Parties	Notes
African American	Achieve a measurable increase in African American student success	Seek out training of flex activities for staff to help identify resources and instructional techniques to support this student population.	Fall 2020	Phil Torres, Jason Dearman, Earl Ortiz	
Low Income	Reduce overall cost of student textbooks.	Meet with CDX automotive. For potential switch to one time cost for digital text ($190-$225) vs. traditional textbooks at a cost of $1800-$2000 over the two year program.	Fall 2020	Phil Torres, Jason Dearman, Earl Ortiz	

3. Assessment Status Update and CSLO Assessment Effectiveness : Version by **Dearman, Jason** on **02/03/2022 19:49**

a. Please review the data provided on the assessment status of courses in your discipline for Cycle Two (2017/18-2020/21). For any courses that were not assessed in Cycle Two please list them in the table below in your response including why they were not assessed, when you are going to assess them, and who is going to assess them.*

NOTE - Please copy and paste the table below in your response and complete accordingly (add extra rows if needed).

Course Name/ Number	Reason course was not assessed	When course will be assessed	Faculty Responsible for Course Assessment

Course Name/ Number	Reason course was not assessed	When course will be assessed	Faculty Responsible for Course Assessment
Auto-055	Clean air car course. This course was planned for a rewrite as a new course to conform with new state emission mandates. Unexpected delays due to pandemic conditions allowed the course to run past the retirement date.	Spring 2022	Phil Torres
Auto-112	Engine Technology. This course changed Instructors several times. The assessment assignment was not clearly transitioned during the 2018-2021 period.	Spring 2022	Phil Torres
Auto-131	Introduction to Diesel. This course was run sporadically and missed its assessment date. It is expected this course will not run again until Fall 2023	Fall 2023	Stan Gozzi
Auto-111	Automotive Electrical Systems. This course was missed during the cycle, no clear reason is available. This course will be assessed in the spring 2022 semester	Spring 2022	Jason Dearman
Auto-140	Automotive Diagnosis 1. This course was missed during the cycle, no clear reason is available. This course will be assessed in the spring 2022 semester	Spring 2022	Phil Torres

Auto-047	auto Heating and Air Conditioning. This course was rewritten and listed under Auto 113. This course number has not been active from 2018 forward.	N/A	N/A
Auto-048	Automatic transmissions. This course was rewritten and listed under Auto 130. This course number has not been active from 2018 forward.	N/A	N/A
Auto-049	Manual Transmissions. This course was rewritten and listed under Auto 133. This course number has not been active from 2018 forward.	N/A	N/A
Auto-041	Automotive engine Diagnosis 2. This course was rewritten and listed under Auto 142. This course number has not been active from 2018 forward.	N/A	N/A

b. Discuss the results of any CSLO assessments performed this year. What changes, if any, are planned to improve student success (ex. pedagogy, assessment instruments are not appropriate to measure, CSLO rewritten etc.)?

Current CSLO's were written in a program redevelopment project in 2018. They are currently in line with the program goals and NATEF standards. No faculty recommendations are expected in the five-year COOR update.

4. Course Outline of Record Updates : Version by **Dearman, Jason** on **02/03/2022 19:49**

Please review the data provided in eLumen for the status of the Course Outline of Records (COORs) in your discipline. Please indicate in the table below any COOR(s) for your discipline that has not been updated and identify the faculty member responsible for submitting the updated COOROs) to the Curriculum Committee by November 1, 2021.*

*NOTE - Copy and paste the table below in your response and complete accordingly (add extra rows if necessary).

Course (Enter Course Name ex. ENGL-100)	Faculty Responsible for COOR Update

Course (Enter Course Name ex. ENGL-100)	Faculty Responsible for COOR Update
Auto - 045	Jason Dearman
Auto - 100	Phil Torres
Auto - 055	Phil Torres

Impact of Resource Allocation